

SECTION 1: Product and Company Identification

1.1. Product identifier

Trade name : Optrol
Chemical name : Imidacloprid
Product code : EPA Reg. No. 74779-14

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Insecticide

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Rainbow Treecare Scientific Advancements
11571 K-Tel Drive
Minnetonka, MN 55343
Phone: 1-(877) 272-6747 (toll free)
www.treecarescience.com

1.4. Emergency telephone number

Emergency number : (800)-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

Hazard Identification Summary

Off-white viscous liquid

GHS Labeling Elements

Hazard pictograms (CLP) :



GHS07

Signal word : WARNING

Hazard statements : May be harmful if swallowed or absorbed through skin.
Mildly irritating to the eyes and skin.
Can decompose at high temperatures releasing toxic gases.
Highly toxic to bees, birds and aquatic invertebrates.
Keep out of waterways.

SECTION 3: Composition/information on ingredients

Name	Product identifier	%/wt.
Imidacloprid	(CAS No.) 138261-41-3	21.4
Other Ingredients	NA	78.6

SECTION 4: First aid measures

4.1. Description of first aid measures

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

- IF SWALLOWED** : Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person
- IF IN EYES** : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice.
- IF ON SKIN OR CLOTHING** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- IF INHALED** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
- First-aid measures – general : Have a product container or label with you when calling a poison control center or doctor, or going in for treatment.
 NOTE TO PHYSICIAN: There is no specific antidote, treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use foam, dry chemical, or water spray
- Unsuitable extinguishing media : High volume water jet. (Water contamination risk from runoff)

5.2. Special hazards arising from the substance or mixture

National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal	

- FLASHPOINT** : >200°F / >100°C
- FIRE AND EXPLOSION HAZARD** : Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

5.3. Advice for firefighters

- Firefighting instructions : Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Minimize use of water to prevent environmental contamination.
- Firefighting equipment : Self-contained breathing apparatus with full face piece.



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Control the spill at its source. Contain the spill to prevent it from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Keep unnecessary and unprotected personnel from entering the affected area.

6.2. Environmental precautions

This material should be prevented from contaminating soil or entering sewage and drainage systems and bodies of water. Minimize use of water for cleaning spills to prevent environmental contamination.

6.3. Methods and material for containment and cleaning up

SMALL SPILL : Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL : Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow the absorbed material to solidify, and scrape up for disposal. After removal, clean the contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

KEEP OUT OF REACH OF CHILDREN!

Precautions for safe handling : Use only in a well-ventilated area. Minimize dust generation and accumulation.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep away from food, feed, and drinking water. Store in a well-ventilated dry place away from heat. Store above 32 °F.

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

SECTION 8: Exposure controls/personal protection

8.1. Personal protective equipment

EYE PROTECTION—Safety goggles or glasses with side shields.

CLOTHING—Long-sleeved shirt and long pants, chemical-resistant footwear plus socks.

GLOVES—Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC), Viton

RESPIRATOR—Not required when handled under normal conditions. When handling in enclosed areas with inadequate ventilation, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

8.2. Exposure controls

EXPOSURE LIMITS (8 hour TWA, ppm):

COMPONENT	OSHA PEL	ACIGH TLV
Imidacloprid	Not listed	Not listed

Engineering controls : Proper ventilation is required when handling or using this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Off-white
Odor	: Weak paint, solvent character
pH (1%)	: 6.0 – 8.0
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Boiling point	: No data available
Flash point	: >100 °C (>212 °F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: 5.2×10^{-6} Pa at 25 °C (Imidacloprid)
Density	: 1.06 – 1.09 g/mL (8.85 – 9.10 lb/gl)*
Solubility	: No data available
Partition Coefficient	: Log Pow = 0.57 at 25 °C (Imidacloprid)
Viscosity	: 104 mPa/s at 20 °C; 134 mPa/s at 40 °C
Explosive properties	: Not explosive
Oxidizing properties	: No oxidizing properties
Explosive limits	: Not applicable

*Listed density is an approximate value and does not necessarily represent that of a specific batch



SECTION 10: Stability and reactivity

10.1. Reactivity

Non-reactive

10.2. Chemical stability

Stable under normal conditions, however may decompose if heated.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Protect from heat and avoid exposure to temperatures above 100 °F (38 °C) for prolonged periods of time. A strong exothermal reaction can occur above 390 °F (200 °C).

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity data for Optrol are provided below:

Optrol	
LD50 oral rat	>2500 mg/kg
LD50 dermal rat	>2000 mg/kg
LC50 inhalation rat	>2.27 mg/L
Eye irritation rabbit	Mild
Skin irritation rabbit	Mild
Sensitization guinea pig	Non-sensitizer

Imidacloprid

Carcinogenicity	: Imidacloprid is not listed as a carcinogen by IARC, NTP, OSHA or ACGIH.
Teratogenicity	: No reproductive or teratogenic (birth defect) effects at normal exposure levels.
Mutagenicity	: Little or no evidence of mutagenic effects have been observed from in vivo or in vitro studies.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological Summary

This product is highly toxic to birds and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Cover or incorporate spilled treated seeds.



This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Ecotoxicity data

Ecotoxicity data are not available for Optrol. Active ingredient data are given below:

Imidacloprid	
Fish (Rainbow Trout 96 hr.)	LC50: 211 mg/L
Fish (Bluegill 96 hr.)	LC50: unknown
Acute toxicity to Mallard ducks	Oral LC50: 4700 ppm
Acute toxicity to Bobwhite quail	Oral LC50: 1500 ppm
Acute toxicity to Honey bee	Contact LD50: Highly toxic!

Refer to product label for specific directions on pollinator protection.

12.2. Persistence and degradability

FATE : Imidacloprid has a soil half-life of 29-225 days depending on soil type conditions. It is soluble in water and has the potential to leach in permeable soil types.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Do not contaminate water, food, or feed by storage or disposal.

Waste: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

Container Disposal: Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

SECTION 14: Transport information

SHIPPING DESCRIPTION : Not regulated by DOT for ground transport

TRANSPORT HAZARD CLASS : N/A

UN NUMBER : N/A

DOT PACKING GROUP : N/A

SECTION 15: Regulatory information

FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and



Optrol

Safety Data Sheet

US and GHS
Revision date: October 8, 2014

Version: 1.0

hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word : CAUTION
Hazard statements : Harmful if swallowed or absorbed through skin. Causes mild skin and eye irritation.
Precautionary statements : Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

CERCLA REPORTABLE QUANTITY : Not listed

SARA TITLE III STATUS

311/312 Hazard Categories : Immediate Health Hazard
313 Toxic Chemicals : None known

CALIFORNIA PROP 65 : Not listed

TSCA : This product is exempted from TSCA because it is solely for FIFRA regulated use

SECTION 16: Other information

HMIS HAZARD RATING	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

MSDS US

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of Rainbow Treecare Scientific Advancements' knowledge. Rainbow Treecare Scientific Advancements makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

REVISED DATE: October, 2014
REFERENCE: Revised for GHS compliance